

## **A METHODOLOGY FOR IMPROVING MANAGEMENT OF CONTROVERSIAL WETLAND**

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Valley bottom wetlands (VBWs) included in agricultural landscapes are often neglected in national and regional wetland inventories. These VBWs are located in catchments of order 1, 2 or 3 according to Strahler. These zones appear as narrow strips along the rivers and then also named riparian wetlands, widening out as spoon-shaped basins at the catchment head. Although these areas are small, and scattered in the rural landscape, they strongly influence hydrology, water quality and biodiversity over the whole catchment area. VBWs are often considered as controversial wetlands. Awareness is increasing of the functional role of wetlands, in parallel with their progressive disappearance in intensive farming landscapes.

From a management perspective, the status of these wetlands in rural landscapes is still an open question, whether involving all or part of the multiple functions. Land planners and users are often concerned with quite diverse and indeed diverging interests as regards wetlands. The need to improve tools for controlling wetland management is a primary consideration for decision-makers and land-users.

The aim of this talk is twofold 1) To interpret among wetland classifications and to improve the consistency between different approaches for characterising wetlands; 2) To propose a methodology that associates and organises into a hierarchy wetland delineation and wetland functions.

This methodology is based on the functional analysis of Potential, Existing and Efficient riparian Wetlands (the PEEW Approach). Several indicators are proposed to check the validity of such an approach. Potential wetlands can be delineated by means of a topographic index using topographic and pedo-climatic criteria that are computed from a Digital Elevation Model and easily accessible databases. Existing wetlands can be identified from observed surface moisture, the presence of specific wetland vegetation or soil feature criteria. Efficient wetlands can only be defined through a given function, such as flow or pollutant regulation, or biodiversity control. An analysis of areas at the limits between potential, existing and efficient wetlands highlights land cultivated or drained in the past, and which nowadays represent negotiating areas where intended management actions can be implemented.

This methodology, established for valley bottom wetlands, was also recently used for facilitating the management of a marshland, as it will be shown.